

What Is Claimed Is:

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1. A method of detecting an enzyme-mediated nucleic acid cleavage reaction in a fluorometric assay comprising the steps of:

5 (a) preparing a fluorescently labeled oligonucleotide containing a nucleic acid sequence recognizable by said enzyme, wherein said oligonucleotide acts as an enzyme substrate;

(b) contacting said oligonucleotide of step a) with said enzyme in an amount sufficient to enzymatically cleave said oligonucleotide; and

10 (c) detecting a nucleic acid cleavage reaction by detecting an increase in fluorescence.

2. The method of claim 1, wherein said oligonucleotide is fluorescently labeled at one end.

3. The method of claim 1, wherein said oligonucleotide is fluorescently labeled at both ends.

15 4. The method of claim 1, wherein said nucleic acid is DNA.

5. The method of claim 1, wherein said nucleic acid cleavage reaction is catalyzed by a restriction enzyme.

6. The method of claim 1, wherein said nucleic acid cleavage reaction is catalyzed by a DNase or RNase enzyme.

20 7. The method of claim 1, wherein said nucleic acid cleavage reaction is catalyzed by a retroviral integrase enzyme.

8. The method of claim 2, wherein said nucleic acid cleavage reaction is catalyzed by a restriction enzyme.

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